

Amendments to the Specification

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Please replace the paragraph beginning at page 1, line 5, with the following rewritten paragraph:

A1  
The present application is related to United States Patent application Serial No. ~~(R. Laroia J. Li S. Rangan P. Viswanath Case 15-8-4-1)~~ 09/551,078 which was filed on April 18, 2000 concurrently herewith.

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Please replace the abstract beginning at page 17, line 1, with the following rewritten abstract:

Abstract of the Disclosure

A2  
Base station identification and downlink synchronization are realized by employing pilots including known symbols transmitted at prescribed frequency tones in individual ones of prescribed time intervals. Specifically, the symbols used in the pilots are uniquely located in a time- frequency grid, where the locations are specified by periodic pilot tone hopping sequences. In a specific embodiment of the invention, a period of a pilot tone hopping sequence is constructed by starting with a Latin-square based hopping sequence, truncating it over time, and possibly offsetting and permuting it over frequency. Particular examples of pilot tone hopping sequences are parallel slope hopping sequences in which the periodicity of the sequences is chosen to be a prime number of symbol time intervals. In another embodiment of the invention, a notion of phantom pilots is employed to facilitate use of various system